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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

- 1.-4. (Canceled).
- 5. (Previously presented) *Actinosynnema pretiosum* strain PF4-4 having ATCC accession number PTA-3921.
- 6. (Currently amended) An enhanced *Actinosynnema pretiosum* strain that produces an ansamitocin in an amount of between about 1.2-fold and about 10-fold more than the amount produced by *Actinosynnema pretiosum* strain N-1231 (ATCC accession number 31565)a parental strain from which the enhanced strain was derived.
- 7. (Currently amended) The enhanced *Actinosynnema pretiosum* strain according to claim 6, wherein the enhanced strain produces an ansamitocin in an amount of between 1.2-fold and 10-fold more than the amount produced by *Actinosynnema pretiosum* strain N-1231 (ATCC accession number 31565) a parental strain from which the enhanced strain was derived.
- 8. (Currently amended) The enhanced *Actinosynnema pretiosum* strain according to claim 6, wherein the enhanced strain produces an ansamitocin in an amount of between 1.8-fold and 10-fold more than the amount produced by *Actinosynnema pretiosum* strain N-1231 (ATCC accession number 31565) a parental strain from which the enhanced strain was derived.
- 9. (Currently amended) The enhanced *Actinosynnema pretiosum* strain according to claim 6, wherein the enhanced strain produces an ansamitocin in an amount of between 5-fold

and 10-fold more than the amount produced by <u>Actinosynnema pretiosum strain N-1231 (ATCC accession number 31565)a parental strain from which the enhanced strain was derived.</u>

- 10. (Canceled).
- 11. (Previously presented) The enhanced *Actinosynnema pretiosum* strain according to claim 6, wherein the ansamitocin is ansamitocin P-3.
- 12. (Withdrawn) A method for producing an ansamitocin, which comprises cultivating the enhanced *Actinosynnema pretiosum* strain of claim 6 in a culture medium comprising a suitable carbon source.
- 13. (Withdrawn) The method of claim 12, wherein said ansamitocin is one or more ansamitocins of formula (I) or isomers thereof:

$$H_3CO$$
 CI
 CH_3
 C

wherein R is selected from the group consisting of hydrogen, acetyl, propionyl, isobutyryl, butyryl, and isovaleryl, and R_1 is selected from the group consisting of methyl and hydroxymethyl.

14. (Withdrawn) The method of claim 13, wherein R is isobutyryl and R_1 is methyl.

- 15. (Withdrawn) The method of claim 12, wherein said ansamitocin is ansamitocin P-3 and said carbon source comprises one or more carbon sources selected from the group consisting of valine, isobutyric acid, isobutyl alcohol, and isobutylaldehyde.
- 16. (Currently amended) An enhanced *Actinosynnema* strain that produces an ansamitocin in an amount of between about 1.2-fold and about 10-fold more than the amount produced by *Actinosynnema pretiosum* strain N-1231 (ATCC accession number 31565)a parental strain from which the enhanced strain was derived.
- 17. (Currently amended) The enhanced *Actinosynnema* strain according to claim 16, wherein the enhanced strain produces an ansamitocin in an amount of between 1.2-fold and 10-fold more than the amount produced by *Actinosynnema pretiosum* strain N-1231 (ATCC accession number 31565) a parental strain from which the enhanced strain was derived.
- 18. (Currently amended) The enhanced *Actinosynnema* strain according to claim 16, wherein the enhanced strain produces an ansamitocin in an amount of between 1.8-fold and 10-fold more than the amount produced by *Actinosynnema pretiosum* strain N-1231 (ATCC accession number 31565)a parental strain from which the enhanced strain was derived.
- 19. (Currently amended) The enhanced *Actinosynnema* strain according to claim 16, wherein the enhanced strain produces an ansamitocin in an amount of between 5-fold and 10-fold more than the amount produced *Actinosynnema pretiosum* strain N-1231 (ATCC accession number 31565) by a parental strain from which the enhanced strain was derived.
- 20. (Previously presented) The enhanced *Actinosynnema* strain according to claim 16, wherein the ansamitocin is ansamitocin P-3.

- 21. (Withdrawn) A method for producing an ansamitocin, which comprises cultivating the enhanced *Actinosynnema* strain of claim 16 in a culture medium comprising a suitable carbon source.
- 22. (Withdrawn) The method of claim 21, wherein said ansamitocin is one or more ansamitocins of formula (I) or isomers thereof:

$$H_3CO$$
 CI
 CH_3
 C

wherein R is selected from the group consisting of hydrogen, acetyl, propionyl, isobutyryl, butyryl, and isovaleryl, and R_1 is selected from the group consisting of methyl and hydroxymethyl.

- 23. (Withdrawn) The method of claim 22, wherein R is isobutyryl and R_1 is methyl.
- 24. (Withdrawn) The method of claim 21, wherein said ansamitocin is ansamitocin P-3 and said carbon source comprises one or more carbon sources selected from the group consisting of valine, isobutyric acid, isobutyl alcohol, and isobutylaldehyde.
 - 25.-33. (Canceled).
- 34. (Currently amended) A method of producing an enhanced <u>Actinosynnema</u> bacterial-strain that produces an ansamitocin in an amount of between about 1.2-fold and about

10-fold more than the amount produced by a parental <u>Actinosynnema</u> strain from which the enhanced strain <u>is was derived</u>, said method comprising:

- (a) treating a <u>bacterial</u> culture of <u>an Actinosynnema</u> strain a bacteria that produces an <u>ansamitocin</u> with a mutagen,
 - (b) growing the treated bacteria of (a) under selective pressure,
- (c) selecting for an isolate of the product of (b) that exhibits increased production of an ansamitocin compared with the culture used in (a), and
- (d) optionally repeating (a), (b) and (c) until an isolate that produces between about 1.2-fold and about 10-fold more of an ansamitocin than the culture used in (a) is obtained.
 - 35. (Canceled).
- 36. (Currently amended) The method of claim 34, wherein said <u>Actinosynnema</u> bacterial strain is a strain of an Actinosynnema pretiosum.
- 37. (Withdrawn) The method of claim 34, wherein the mutagen is UV light or 1-methyl-3-nitro-1-nitroso-guanidine.
- 38. (Currently amended) The method of claim 34, wherein the enhanced <u>Actinosynnema</u> bacterial-strain produces an ansamitocin in an amount of between 1.2-fold and 10-fold more than the amount produced by the parental <u>Actinosynnema</u> strain.
- 39. (Currently amended) The method of claim 34, wherein the enhanced

 <u>Actinosynnema</u> bacterial-strain produces an ansamitocin in an amount of between 1.8-fold and

 10-fold more than the amount produced by the parental <u>Actinosynnema</u> strain.

- 40. (Currently amended) The method of claim 34, wherein the enhanced

 <u>Actinosynnema</u> bacterial-strain produces an ansamitocin in an amount of between 5-fold and 10fold more than the amount produced by the parental <u>Actinosynnema</u> strain.
- 41. (Withdrawn) The method of claim 34, wherein the selective pressure comprises growth of the treated bacteria on CM4-1 media.
 - 42.-49. (Canceled).